

## Cloudy Skies

**Topic:** Atmosphere

**Objectives:** Observe and classify cloud types

**Grade Level:** all

**Time:** 10 – 15 minutes

**Materials:** cloud charts, writing pads, pens or pencils

**Location:** Active Oval

Vocabulary:  
altitude  
cumulus  
stratus  
nimbus  
cirrus  
alto  
precipitation

**Background:** Clouds are categorized according to two characteristics: their shape, and how high they are in the sky. Puffy clouds are called cumulus clouds. Flat, layered clouds are stratus clouds. The name of high altitude clouds begins with the prefix “cirro”. The prefix “alto” refers to middle altitude clouds. The prefix “nimbo” or the suffix “nimbus” is used if precipitation is falling from the clouds. These words can be combined to describe many different clouds.

**Advance Preparation:** none

**Procedure:**

1. Look at the clouds. Use pictures and descriptions of clouds to name and classify the types of clouds you see in the sky.

### CLOUD TYPES

ALTITUDE	NAME	DESCRIPTION
<b>High</b>		
	Cirrus	White, wispy or feathery. Composed of ice crystals.
	Cirrocumulus	Thin white ripples. Patchy spaces between clouds.
	Cirrostratus	Thin, light gray or white veil. Sun or moon visible.
<b>Middle</b>		
	Alto cumulus	Wavy or slightly puffy. May have space between clouds.
	Altostratus	Light gray sheet. Uniform, covering most of sky.
<b>Low</b>		
	Cumulus	Puffy, cauliflower or popcorn shape.
	Cumulonimbus	Large with dark bases and billowing towers. Precipitating.
	Stratocumulus	Rolling irregular masses. May have space between clouds.
	Stratus	Grey sheet. Uniform, covering most the sky.
	Fog	A stratus cloud that touches the ground.
	Nimbostratus	Dark gray sheet. Blots out light of sun. Precipitating.

**Questions to think about and discuss:**

1. Think of some things that can help you estimate how high the clouds are. The facts below may help you.

- High clouds are at altitudes of about 20,000 to 40,000 feet.
- Passenger jets fly at an average height of about 35,000 feet.
- The tallest mountain in the world has a height of just over 29,000 feet.
- Middle altitude clouds are at heights between 5,000 feet to 20,000 feet.
- Brasstown Bald, the tallest mountain in Georgia, is about 4,800 feet high.
- Low clouds are below 5000 feet in altitude.
- The top of Stone Mountain is about 1,700 feet above sea level.
- Tall Atlanta skyscrapers are about 1000 feet high.
- Kites usually fly at about 200-300 feet.

2. How many different types of clouds can you see in the sky today?

3. Which cloud types are likely to bring rain? Which suggest fair weather?

4. Think of some words to describe the clouds you see. You might describe the size or texture of the clouds with words such as large, or dense or filmy. Or you might describe the clouds' shape or color such as lumpy or silvery or looks like a.... Share your descriptions with your classmates.